NEWSPAPER 81

PHYSICAL REVIEW LETTERS

Contents

VOLUME 81, NUMBER 10 7 September 1998

General Physics

Semiclassical Time Evolution and Trace Formula for Relativistic Spin-1/2 Particles 1987
Jens Bolte and Stefan Keppeler

Neutron Interferometric Observation of Noncyclic Phase 1992
Apoorva G. Wagh, Veer Chand Rakhecha, Peter Fischer, and Alexander Ioffe

Velocity Rephased Longitudinal Momentum Coherences with Differentially Detuned Separated Oscillatory Fields 1996
Edward T. Smith, Al-Amin Dhirani, David A. Kokorowski, Richard A. Rubenstein, Tony D. Roberts, Huan Yao, and David E. Pritchard

Yang-Lee Zeros of the Q-State Potts Model in the Complex Magnetic Field Plane 2000
Seung-Yeon Kim and Richard J. Creswick

Gravitation and Astrophysics

Impact of Inhomogeneous Reionization on Cosmic Microwave Background Anisotropy 2004
Lloyd Knox, Román Scoccimarro, and Scott Dodelson

Cosmic-String–Seeded Structure Formation 2008
P. P. Avelino, E. P. S. Shellard, J. H. P. Wu, and B. Allen

First-Order Nonthermal Phase Transition after Preheating 2012
S. Khlebnikov, L. Kofman, A. Linde, and I. Tkachev

Elementary Particles and Fields

Measurement of the Flux and Zenith-Angle Distribution of Upward Through-Going Muons in Kamiokande II + III 2016
S. Hatakeyama *et al.*

Integrability of Three-Particle Evolution Equations in QCD 2020
V. M. Braun, S. É. Derkachov, and A. N. Manashov

Factorization for High-Energy Scattering 2024
I. Balitsky

Simple Charged Higgs Model of Soft or Spontaneous CP Violation without Flavor Changing Neutral Currents 2028
David Bowser-Chao, Darwin Chang, and Wai-Yee Keung

Atomic, Molecular, and Optical Physics

Control of Time-Dependent Nonadiabatic Processes by an External Field 2032
Yoshiaki Teranishi and Hiroki Nakamura

Melting of Gold Clusters: Icosahedral Precursors 2036
Charles L. Cleveland, W. D. Luedtke, and Uzi Landman

Nonlinear Dynamics, Fluid Dynamics, Classical Optics, etc.

Quantum Mechanical Tools in Applications to Classical Dynamical Systems 2040
Robert Alicki

Burnett Description of Strong Shock Waves 2044
F. J. Uribe, R. M. Velasco, and L. S. García-Colín

Finger Behavior of a Shear Thinning Fluid in a Hele-Shaw Cell 2048
Eugenia Corvera Poiré and Martine Ben Amar

(Continued on Third Cover)

Copyright 1998 by The American Physical Society

CODEN: PRLTAO 81 (10) 1997 2181–2184 (7 September 1998)

10

Plasma and Beam Physics

Transverse Laser Cooling of a Fast Stored Ion Beam through Dispersive Coupling 2052
I. Lauer, U. Eisenbarth, M. Grieser, R. Grimm, P. Lenisa, V. Luger, T. Schätz, U. Schramm, D. Schwalm, and M. Weidemüller
Scaling of Anisotropy in Hydromagnetic Turbulence 2056
W. H. Matthaeus, Sean Oughton, Sanjoy Ghosh, and Murshed Hossain
Electron Bernstein Wave Emission from an Overdense Plasma at the W7-AS Stellarator 2060
H. P. Laqua, H. J. Hartfuß, and W7-AS Team
Generation of dc Magnetic Fields by Rectifying Nonlinear Whistlers 2064
R. L. Stenzel and J. M. Urrutia
Observation of Forward Shocks and Stagnated Ejecta Driven by High-Energy-Density Plasma Flow 2068
R. P. Drake, S. G. Glendinning, Kent Estabrook, B. A. Remington, Richard McCray, R. J. Wallace, L. J. Suter, T. B. Smith, J. J. Carroll III, R. A. London, and E. Liang
Operation of the Rotamak as a Spherical Tokamak: The Flinders Rotamak-ST 2072
I. R. Jones, Chuanbao Deng, I. M. El-Fayoumi, and P. Euripides

Condensed Matter: Structure, etc.

Evidence of a Sponge-to-Lamellar Phase Transition under Shear by X-Ray Scattering Experiments in a Couette Cell 2076
H. F. Mahjoub, C. Bourgaux, P. Sergot, and M. Kleman
Viscous versus Elastic Response of Hydrogen-Bonded Liquids: Collective Dynamics in HF 2080
D. Bertolini, G. Sutmann, A. Tani, and R. Vallauri
Optically Induced Migration of Interstitial Zinc in ZnSe: Caught in the Act 2084
K. H. Chow and G. D. Watkins
Vacancy in Silicon Revisited: Structure and Pressure Effects 2088
A. Antonelli, Efthimios Kaxiras, and D. J. Chadi
Decomposition and Polymerization of Solid Carbon Monoxide under Pressure 2092
Stéphane Bernard, Guido L. Chiarotti, Sandro Scandolo, and Erio Tosatti
Ab Initio Study of Be (0001) Surface Thermal Expansion 2096
Michele Lazzeri and Stefano de Gironcoli
Neutron Brillouin and Umklapp Scattering from Glassy Selenium 2100
M. Foret, B. Hehlen, G. Taillades, E. Courtens, R. Vacher, H. Casalta, and B. Dorner
Surface Critical Behavior in Systems with Absorbing States 2104
Kent Bækgaard Lauritsen, Per Fröjdh, and Martin Howard
Electronic Structure of the $\sqrt{3} \times \sqrt{3}$-α and 3×3 Periodicities of Sn/Ge(111) 2108
R. I. G. Uhrberg and T. Balasubramanian

Condensed Matter: Electronic Properties, etc.

Asymptotically Exact Wave Functions of the Harper Equation 2112
A. G. Abanov, J. C. Talstra, and P. B. Wiegmann
Doping of a Spin-1 Chain: An Integrable Model 2116
Holger Frahm, Markus P. Pfannmüller, and A. M. Tsvelik
Coulomb Gap in the Density of States of Disordered Metals in Two Dimensions 2120
Peter Kopietz
Doping Dependent Density of States and Pseudogap Behavior in $La_{2-x}Sr_xCuO_4$ 2124
A. Ino, T. Mizokawa, K. Kobayashi, A. Fujimori, T. Sasagawa, T. Kimura, K. Kishio, K. Tamasaku, H. Eisaki, and S. Uchida
Absence of Bimodal Peak Spacing Distribution in the Coulomb Blockade Regime 2128
Richard Berkovits
Infrared Probe of Transition from Superconductor to Nonmetal in $YBa_2(Cu_{1-x}Zn_x)_4O_8$ 2132
D. N. Basov, B. Dabrowski, and T. Timusk
Fermi Surface Evolution, Pseudogap, and Staggered Gauge Field Fluctuations in Underdoped Cuprates 2136
Xi Dai and Zhao-Bin Su

(Continued on Preceding Page)

Contents (Continued)

c-Axis Penetration Depth of Hg-1201 Single Crystals 2140
J. R. Kirtley, K. A. Moler, G. Villard, and A. Maignan

90° Magnetization Switching in Thin Fe Films Grown on Stepped Cr(001) 2144
Ernesto J. Escorcia-Aparicio, Hyuk J. Choi, W. L. Ling, R. K. Kawakami, and Z. Q. Qiu

Two Electron Photoemission in Solids 2148
R. Herrmann, S. Samarin, H. Schwabe, and J. Kirschner

Interdisciplinary Physics: Biological Physics, Quantum Information, etc.

Experimental Quantum Error Correction 2152
D. G. Cory, M. D. Price, W. Maas, E. Knill, R. Laflamme, W. H. Zurek, T. F. Havel, and S. S. Somaroo

Dynamics Based Computation 2156
Sudeshna Sinha and William L. Ditto

Mechanism of Thickness Determination in Polymer Crystals 2160
Jonathan P. K. Doye and Daan Frenkel

Oscillation Phenomena Leading to Chaos in a Stochastic Surface Reaction Model 2164
O. Kortlüke, V. N. Kuzovkov, and W. von Niessen

Desynchronization, Mode Locking, and Bursting in Strongly Coupled Integrate-and-Fire Oscillators 2168
P. C. Bressloff and S. Coombes

Variational Approach to Protein Design and Extraction of Interaction Potentials 2172
Flavio Seno, Cristian Micheletti, Amos Maritan, and Jayanth R. Banavar

Comments

Comment on "Kaon Production in Heavy-Ion Collisions and Maximum Mass of Neutron Stars" 2176
Norman K. Glendenning

Li, Brown, and Lee Reply 2177
G. Q. Li, G. E. Brown, and C.-H. Lee

Comment on "Multicritical Behavior in Coupled Directed Percolation Processes" 2178
Yadin Y. Goldschmidt

Täuber, Howard, and Hinrichsen Reply 2179
U. C. Täuber, M. J. Howard, and H. Hinrichsen

Comment on "Raman Scattering Study on Fully Oxygenated $YBa_2Cu_3O_7$ Single Crystals: x-y Anisotropy in the Superconductivity-Induced Effects" 2180
T. Strohm, V. I. Belitsky, V. G. Hadjiev, and M. Cardona

Limonov *et al.* Reply 2181
M. F. Limonov, A. I. Rykov, S. Tajima, and A. Yamanaka

Comment on "Description of Spin and Charge Domain Walls in Doped Perovskite-Type 3*d* Transition-Metal Oxides Based On Superexchange Interaction" 2182
Eduard Tutiš

Mizokawa and Fujimori Reply 2183
T. Mizokawa and A. Fujimori

Errata

Erratum: Reconstruction Mechanism of fcc Transition Metal (001) Surfaces [Phys. Rev. Lett. **71**, 1051 (1993)] 2184
Vincenzo Fiorentini, Michael Methfessel, and Matthias Scheffler

Cumulative Author Index i